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Claims:

1. A pharmaceutical composition containing a peptide and a pharmaceutically acceptable carrier or diluent wherein

a) the peptide has a length of 8 to 50 amino acids;
b) at least three preferably consecutive amino acids of the peptide are identical to at least three amino acids which appear in close vicinity on the molecular surface of an allergenic protein;
c) said at least three amino acids are solvent-exposed amino acids in the allergenic protein.

2. A pharmaceutical composition according to claim 1 wherein said at least three amino acids appear on the molecular surface of the allergenic protein within a surface patch of approximately 500 square Angström.

3. A pharmaceutical composition according to claim 1 or 2 containing a peptide and a pharmaceutically acceptable carrier or diluent wherein

a) the peptide has a length of 8 to 50 amino acids;

b) at least five consecutive amino acids of the peptide are identical to at least five consecutive amino acids of the amino acid sequence of an allergenic protein; and

c) said at least five consecutive amino acids are solvent-exposed amino acids in the allergenic protein.

4. A pharmaceutical composition according to any of claims 1 to 3 further containing an adjuvant.

5. A pharmaceutical composition according to any of claims 1 to 4 characterized in that all amino acids of the peptide except one are identical to an amino acid sequence which is part of the allergenic protein.

6. A pharmaceutical composition according to claim 5 characterized in that the one amino acid which deviates from the amino acid sequence of the allergenic protein is the N-terminal or C-terminal amino acid of the peptide.

7. A pharmaceutical composition according to any of claims 1 to 4 characterized in that the amino acid sequence of the peptide is identical to an amino acid sequence which is part of the allergenic protein.

8. A pharmaceutical composition according to any of claims 1 to 7 characterized in that the allergenic protein is the birch pollen allergen Bet v 1.

9. A pharmaceutical composition according to any of claims 1 to 8 characterized in that the peptide comprises at least the N-terminal or C-terminal five amino acids of the allergenic protein.

10. A pharmaceutical composition according to any of claims 1 to 9 characterized in that the peptide upon administration is capable of inducing IgG antibodies which react with the allergenic protein.

11. A pharmaceutical composition according to claim 10 characterized in that the induced IgG antibodies can reduce or prevent binding of IgE antibodies to the allergenic protein.

12. A pharmaceutical composition according to any of claims 1 to 11 characterized in that the peptide upon administration does not induce a significant IgE response.

13. A pharmaceutical composition according to any of claims 1 to 12 characterized in that it is a vaccine composition.

14. A method for the preparation of a pharmaceutical composition comprising the following steps:

a) determining which amino acids of a given allergenic protein are solvent-exposed on the surface of the allergenic protein;

b) preparing a peptide having a length of 8 to 50 amino acids wherein at least three preferably consecutive amino acids of the peptide are identical to at least three amino acids which appear in close vicinity on the molecular surface of an allergenic protein wherein the at least three amino acids are solvent-exposed amino acids in the allergenic protein; and

c) optionally admixing the peptide with a pharmaceutically acceptable carrier or diluent.

15. A method according to claim 14 wherein said at least three amino acids appear on the molecular surface of the allergenic protein within a surface patch of approximately 500 square Angström.

16. A method according to claim 14 or 15 for the preparation of a pharmaceutical composition comprising the following steps:

a) determining which amino acids of a given allergenic protein are solvent-exposed on the surface of the allergenic protein;

b) preparing a peptide having a length of 8 to 50 amino acids wherein at least five consecutive amino acids of the peptide are identical to at least five consecutive amino acids of the amino acid sequence of the allergenic protein wherein the at least five consecutive amino acids are solvent-exposed amino acids in the allergenic protein; and

c) optionally admixing the peptide with a pharmaceutically acceptable carrier or diluent.

17. A method according to any of claims 14 to 16 further comprising the addition of an adjuvant.

18. A method according to any of claims 14 to 17 characterized in that all amino acids of the peptide except one are identical to an amino acid sequence which is part of the allergenic protein.

19. A method according to claim 18 characterized in that the one amino acid which deviates from the amino acid sequence of the allergenic protein is the N-terminal or C-terminal amino acid of the peptide.

20. A method according to any of claims 14 to 17 characterized in that the amino acid sequence of the peptide is identical to an amino acid sequence which is part of the allergenic protein.

21. A method according to any of claims 14 to 20 characterized in that the allergenic protein is the birch pollen allergen Bet v 1.

22. A method according to any of claims 14 to 21 characterized in that the peptide comprises at least the N-terminal or C-terminal five amino acids of the allergenic protein.

23. A method according to any of claims 14 to 22 characterized in that the solvent-exposed amino acids of the allergenic protein are determined by determining the hydrophilicity profile of the amino acid sequence of the allergenic protein.

24. A method according to any of claims 14 to 22 characterized in that the solvent-exposed amino acids are determined from the three-dimensional structure of the allergenic protein.

25. The use of a peptide which has a length of 8 to 50 amino acids wherein at least three preferably consecutive amino acids of the peptide are identical to at least three amino acids which appear in close vicinity on the molecular surface of an allergenic protein with the at least three amino acids being solvent-exposed amino acids in the allergenic protein for the preparation of a medicament for the treatment of an allergic disease.

26. The use of claim 25 wherein said at least three amino acids appear on the molecular surface of the allergenic protein within a surface patch of approximately 500 square Angström.

27. The use of a peptide according to claim 25 or 26 which peptide has a length of 8 to 50 amino acids wherein at least five consecutive amino acids of the peptide are identical to at least five consecutive amino acids of the amino acid sequence of an allergenic protein with the at least five consecutive amino acids being solvent-exposed amino acids in the allergenic protein for the preparation of a medicament for the treatment of an allergic disease.